

REMARKS

Claims 1-7 are pending in the application.

Claims 1-7 have been cancelled and new claims 8-12 have been added.

The new claims relate to a network system providing secure communication services.

The network system includes a plurality of switching equipment. The switching equipment is connected each other through a public network. The switching equipment also accommodates data terminals. A central management and control equipment is connected to the plurality of pieces of switching equipment.

In the Office Action under 35 U.S.C.103 (a) claims 1, 2, 4, and 5 were rejected as unpatentable over Mihm, Jr., (U.S. 5,402,490) in view of Micali (U.S. 6,026,163). In the Office Action its admitted that Mihm fails to describe the central management and control equipment however Micali is cited, in Fig. 1, column 2 to describe these features. Claims 3, 6 and 7 are rejected as unpatentable over Mihm in view of Micali and further in view of Tatebayashi (U.S. 5,124,117).

Mihm, Jr., describes a system having an authentication center 30 and central switching offices 16. However, as suggested in the Office Action, Mihm, Jr. fails to teach that the control management and control equipment includes a database storing a plurality of sets of a public key and a private key, each assigned to a piece of switching equipment.

The Office Action has cited Micali to describe the features of the central management and control equipment. However it is respectfully submitted that Micali only teaches a public key and a secret key to encrypt a message, and does not suggest any network system having a plurality of pieces of switching equipment.

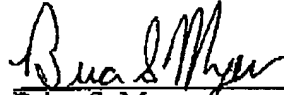
In particular applicant's claimed invention includes a first piece of switching equipment accommodating a data terminal of a calling party transmits a dial number of a called party and a user number of the first piece of switching equipment to the central management and control equipment, the central management and control equipment retrieves a public key of a second piece of switching equipment accommodating a data terminal of the called party and a common key, which is used between the first and second pieces of switching equipment, sends the retrieved public key and common key to the first piece of switching equipment, the first piece of switching equipment encrypts and sends the common key by the public key of the second piece of switching equipment to the second piece of switching equipment, and the second piece of switching equipment decrypts the encrypted common key sent from the first piece of switching equipment by a private key of the second piece of switching equipment, so that the common key can be used to perform secure communication between the first and second pieces of switching equipment.

These features are not suggested in the combination of references. In addition there is no suggestion in either of Mihm, Jr. or Micali to combine such references even if each and every feature was disclosed in the references. Micali only teaches a public key and a secret key to encrypt a message, and does not suggest any network system having a plurality of pieces of switching equipment. should be patented in spite of the presence of the cited references.

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,



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